

ABSTRACT OF THE DISCLOSURE

A non-aqueous electrolyte battery is provided, which exhibits good high-rate discharge characteristics and low-temperature characteristics and ensures high safety when the negative electrode contains 0.6 to 1.7 parts by weight of a particulate modified styrene-butadiene rubber as a binder and 0.7 to 1.2 parts by weight of a thickening agent so that the total amount of the binder and thickening agent is 1.3 to 2.4 parts by weight per 100 parts by weight of a carbon material as an active material, and the concentration of LiPF_6 in the non-aqueous electrolyte is 0.6 to 1.05 mole/liter. The surface area of the active material effectively contributable to charging and discharging reaction is sufficient when the surface area of the carbon material per 1 g of the binder contained in the negative electrode is 300 to 600 m^2 .